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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,587	02/23/2004	Kevin G. Osborn	SUN04-01(040577)	9651
58408 7590 09/18/2007 BARRY W. CHAPIN, ESQ. CHAPIN INTELLECTUAL PROPERTY LAW, LLC WESTBOROUGH OFFICE PARK 1700 WEST PARK DRIVE WESTBOROUGH, MA 01581			EXAMINER SHAN, APRIL YING	
			ART UNIT 2135	PAPER NUMBER
			MAIL DATE 09/18/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/784,587

Applicant(s)

OSBORN, KEVIN G.

Examiner

April Y. Shan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 15 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 17-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/23/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-14 and 17-32 have been examined.

Election/Restrictions

2. Applicant's election without traverse of Group I (Claims 1-14 and 17-32) in the reply filed on 6 July 2007 is acknowledged.
3. The Applicant did not address in the response to election/restriction whether Group II (Claims 15-16) are withdrawn or canceled. Thus, claims 15-16 are withdrawn from further consideration, as they are non-elected claims.

Admitted Prior Art

4. The examiner is aware of Applicant's Admitted Prior Art on pages 1-3 of the Applicant's original disclosure.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
6. Claims 1-14 and 17-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per **claims 1, 17 and 30-32**, "...a fingerprint indicative of the identified portion" is being recited. However, "the identified portion" lacks of antecedent basis. Also, it is not clear whether "identifiable portion" and "the identified portion" are same as each other or different from each other. Additionally, "known portions" is being recited. However, it is not clear what this know portions are being referred to "the identified

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portion" or "identifiable portion"? Further, "...matching comparison fingerprints" is being recited. Is "comparison fingerprints" the same as "the comparison fingerprints" or different from "the comparison fingerprints"? Furthermore, "...the previous incoming transmission" is being recited. However, it lacks of antecedent basis. Finally, "...the matching stored fingerprint" is being recited. It also lacks of antecedent basis.

Any claim not specifically addressed, above, is being rejected as incorporating the deficiencies of a claim upon which it depends. Also, the Applicant is respectfully requested to correct any 112 2nd issues in the dependent claims that the Applicant is aware of.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 1-14 and 17-32 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-14 are directed to a method of tracking incoming transmissions. The examiner respectfully asserts that the claimed subject matter does not fall within the statutory classes listed in 35 USC 101. The claimed steps do not result in a tangible result. Claims 1-14 are rejected as being directed to an abstract idea (i.e., producing non-tangible result) [tangible requirement does require that the claim must recite more than a 101 judicial exception, in that the process must set forth a practical application of

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that 101 judicial exception to produce a real-world result, Benson, 409 U.S. at 71-72, 175 USPQ at 676-77).

Claims 17-29 and 32 are directed to a data communication device for tracking incoming transmissions. However, it appears that the device would reasonably be interpreted by one of ordinary skill in the art as software, per se. There is no element positively recited as part of the device. Applicant's specification provides no explicit and deliberate definition of any positive element, and it appears that such would reasonably be interpreted as representative of the software. As such, it believed that the device of claims 17-29 and 32 are reasonably interpreted as functional descriptive material, per se.

Claim 30 is directed to a computer program product having a computer readable medium operable to store computer program logic. The examiner respectfully asserts that the claimed subject matter does not fall within the statutory classes listed in 35 USC 101. The claimed computer code does not result in a tangible result. Claim 30 is rejected as being directed to a software does not result in a tangible result (i.e., producing non-tangible results) [tangible requirement does require that the claim must recite more than a 101 judicial exception, in that the process must set forth a practical application of that 101 judicial exception to produce a real-world result, Benson, 409 U.S. at 71-72, 175 USPQ at 676-77). Further, on page 16 of the original disclosure, the Applicant discloses computer readable medium includes "baseband signaling...carrier wave". Computer data signal and carrier wave are not limited to that which falls within a statutory category of invention because it is not limited to a process, machine,

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manufacture, or a composition of matter. Instead, it includes a form of energy. Energy does not fall within a statutory category since it is clearly not a series of steps or acts to constitute a process, not a mechanical device or combination of mechanical devices to constitute a machine, not a tangible physical article or object which is some form of matter to be a product and constitute a manufacture, and not a composition of two or more substances to constitute a composition of matter.

Claim 31 is directed to a computer data signal having program code for tracking incoming transmissions. The examiner respectfully asserts that the claimed subject matter does not fall within the statutory classes listed in 35 USC 101. The claimed computer data signal does not result in a tangible result. Claim 31 is rejected as being directed to a software does not result in a tangible result (i.e., producing non-tangible results) [tangible requirement does require that the claim must recite more than a 101 judicial exception, in that the process must set forth a practical application of that 101 judicial exception to produce a real-world result, Benson, 409 U.S. at 71-72, 175 USPQ at 676-77). Further, computer data signal is not limited to that which falls within a statutory category of invention because it is not limited to a process, machine, manufacture, or a composition of matter. Instead, it includes a form of energy. Energy does not fall within a statutory category since it is clearly not a series of steps or acts to constitute a process, not a mechanical device or combination of mechanical devices to constitute a machine, not a tangible physical article or object which is some form of

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matter to be a product and constitute a manufacture, and not a composition of two or more substances to constitute a composition of matter.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 1-3, 5, 9-10, 14, 17-19, 21, 25-26 and 30-32 rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art in view of common knowledge in the art.

As per **claims 1, 17 and 32**, Admitted Prior Art discloses a method/data communication device of tracking incoming transmissions comprising:

identifying an incoming transmission including at least one identifiable portion (e.g. page 2, lines 9-21 of the Applicant's Admitted Prior Art);

computing, for each identifiable portion in the incoming transmission, a fingerprint indicative of the identified portion, the fingerprint being substantially unique to the identified portion ("The present invention is based, in part, on the observation that typical conventional virus detection software monitors incoming arrivals of network traffic" – page 3, lines 3-4 of the Applicant's original disclosure and "The conventional virus detection application also computes a signature for portions of incoming messages for comparison" – e.g. page 2, lines 19-20 of the Applicant's original disclosure);

receiving a set of comparison fingerprints corresponding to known portions, the comparison fingerprints being predetermined ("Such conventional virus detection applications, therefore, employ a set of known virus fingerprints for comparison with incoming mail messages" – e.g. page 2, lines 22-25 of the Applicant's original disclosure); and

comparing the stored fingerprints to the comparison fingerprints to identify stored fingerprints matching comparison fingerprints and, if a match is found, identifying the previous incoming transmission corresponding to the matching stored fingerprint (e.g. page 2, lines 22-25 of the Applicant's original disclosure).

Although the Admitted Prior Art does not expressly disclose storing the computed fingerprint to generate a set of stored fingerprints, the Admitted Prior Art discloses on page 2, lines 24-25, "the application compares each fingerprint in the set to suspect message portions". It is common knowledge in the art that in order to compare a set of fingerprints computed from a message against a set of fingerprints stored in the database or repository, the computed fingerprints at least have to be stored in a

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temporary buffer or storage prior to comparison. It would have been obvious to a person with ordinary skill in the art at the time of invention that storing the computed fingerprint to generate a set of stored fingerprint in order to be compared against the fingerprints stored in the database or repository.

As per **claims 2 and 18**, Admitted Prior Art further discloses wherein storing further comprises selectively storing, if the incoming transmission does not correspond to the comparison fingerprints, at least one fingerprint corresponding to the identifiable portions of the incoming transmission (e.g. page 2, lines 19-21 of the Applicant's original disclosure).

As per **claims 3 and 19**, Admitted Prior Art further discloses wherein computing the fingerprint value includes determining a signature and comparing comprises signature matching (e.g. page 2, lines 22-25 of the Applicant's original disclosure).

As per **claims 5 and 21**, Admitted Prior Art further discloses wherein the comparison fingerprints are virus signatures computed from known undesirable transactions (e.g. page 2, lines 22-25 of the Applicant's original disclosure).

As per **claims 9 and 25**, Admitted Prior Art further discloses wherein the determined undesirable portion did not indicate undesirable transmissions based on the comparing of a previous set of comparison fingerprints (e.g. page 2, lines 19-25).

As per **claims 10 and 26**, Admitted Prior Art further discloses comprising demarcating the incoming transmission into segments, each segment operable to yield

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a fingerprint, wherein comparing further comprises comparing each value in the set of comparison fingerprints with at least one of the segments (e.g. page 2, lines 19-25).

As per **claim 14**, Admitted Prior Art further discloses wherein the undesirable portions are selected from the group virus, worms and Trojan horses included as an attachment according to an established mail protocol (e.g. page 1, lines 4-5 and page 2, lines 9-13)

As per **claims 30-31**, Admitted Prior Art and common knowledge in the art discloses the claimed method of steps as applied above in claim 1. Therefore, Admitted Prior Art and common knowledge in the art discloses the claimed computer program/computer data signal for carrying out the method of steps.

12. Claims 4, 6-8, 11-13, 20, 22-24 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art and common knowledge in the art as applied to claims 1 and 17 above, and further in view of Paul (U.S. Patent No. 6,052,709).

As per **claims 4 and 20**, Admitted Prior Art – common knowledge further discloses comprising receiving at least one successive set of comparison fingerprints, and iteratively comparing the successive sets of comparison fingerprints to the stored fingerprints (page 2, lines 19-25 of the Applicant's original disclosure).

Admitted Prior Art – common knowledge in the art do not expressly discloses wherein if a match is found, identifying a distribution set of the incoming message corresponding to the matching stored fingerprint and transmitting an indication of the match to the distribution set.

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Paul discloses wherein if a match is found, identifying a distribution set of the incoming message corresponding to the matching stored fingerprint and transmitting an indication of the match to the distribution set (abstract, col. 1, line 61 – col. 2, line 24, col. 4, line 35 – col. 5, line 9).

It would have been obvious to a person with ordinary skill in the art to combine Paul's wherein if a match is found, identifying a distribution set of the incoming message corresponding to the matching stored fingerprint and transmitting an indication of the match to the distribution set with Admitted Prior Art – common knowledge in the art motivated by "there is a need for a system that automatically and efficiently identifies unsolicited e-mails messages and controls the delivery of these messages to users... by preventing delivery of the messages to the user's in-boxes", as disclosed by Paul (col. 1, lines 41-49)

As per **claims 6 and 22**, Paul further discloses comprising storing an indication of the subsequent disposition of the incoming transmission; receiving a subsequent set of comparison fingerprints, the subsequent set indicative of refinements to the known portions; matching the subsequent set to the stored fingerprints; determining, based on the matching of the subsequent set, if the subsequent set of comparison fingerprint is indicative of an undesirable portion in the incoming transmission; and selectively performing, based on the determining, a remedial action in response to the subsequent disposition (e.g. col. 5, lines 1-32, col. 5, line 56 – col. 6, line 16, col. 6, line 64 – col. 7, line 1).

As per **claims 7 and 23**, Paul further discloses wherein the subsequent disposition includes transmitting the incoming transmission to a list of successive recipients; and the remedial action is sending a notification to the successive recipients indicative of the matching incoming transmission (e.g. abstract).

As per **claims 8 and 24**, Admitted Prior Art – common knowledge in the art – Paul further discloses wherein the incoming transmission further comprises a series of potentially harmful network transmissions, each of the incoming transmission operable to include malicious code, wherein the subsequent disposition includes delivery to at least one successive recipient and remedial action includes determining the successive recipients from the stored successive disposition and notifying each of the successive recipients (Paul, abstract; Admitted Prior art – page 2, lines 19-25).

As per **claims 11 and 27**, Paul further discloses comprising identifying a segment type of each segment, the segment type corresponding to the content included in the segment; and categorizing each of the segments according to a heuristic, the heuristic indicative of a likelihood of the categorized segment including an undesirable transmission (e.g. col. 7, lines 37-54).

As per **claims 12 and 28**, Admitted Prior Art - Paul further discloses comprising: identifying a risk assessment of each of the segment types and storing the segment

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according to the identified risk assessment, storing further including identifying a duration (e.g. Paul - col. 7, lines 37-54 and Admitted Prior Art – e.g. page 2, lines 19-27).

As per **claims 13 and 29**, Admitted Prior Art –common knowledge in the art further discloses wherein storing the segments further comprises storing the content of the segment with the corresponding fingerprint (page 2, lines 19-25 of the Applicant's original disclosure and it is well known in the art that storing the content of the segment with the corresponding fingerprint in order to avoid storage duplications)

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In particular, Applicant is **strongly urged** to review references Van der Made (U.S. Patent 7,093,239), Margolus et al. (U.S. Patent 7,124,305), Gibbs (U.S. Patent 6,615,348), Leeds (U.S. Patent 6,393,465), Tarbotton et al. (U.S. Patent 6,757,830) and Ji et al. (U.S. Patent 5,889,943) in response to the current office action.


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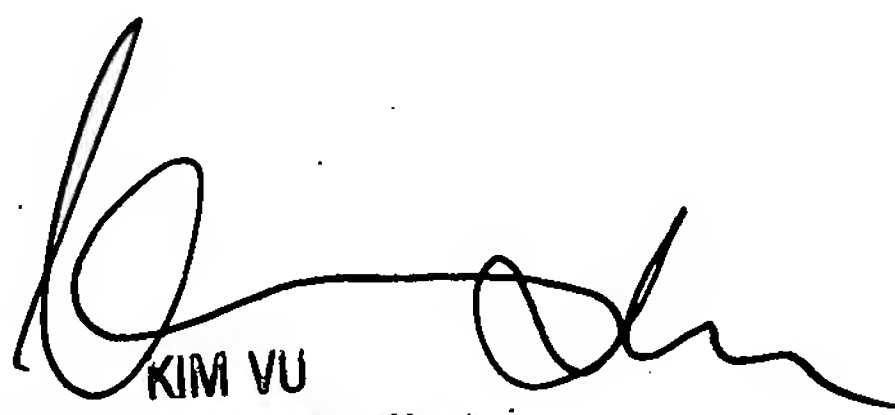
Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to April Y. Shan whose telephone number is (571) 270-1014. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


16 September 2007
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